

## Index to Volume IV.—American Bee Journal.

Agassiz Prof. and Mrs. 48.  
Albino queen 224.  
All worker comb 96, 132, 153, 158.  
Alsike clover 33, 36, 55, 87, 189.  
Anecdote 8.  
Another honey plant 187.  
Another mishap 67.  
Antennae, loss of 80.  
Antidote for bee stings 239.  
Aphis honey 195.  
Artificial swarming 11, 16, 20, 180, 225, 233.  
Association, Northwestern Bee-keepers' 56.  
Atmospheric changes 176.  
Australia, bees in 223.  
Barren queens 243.  
Bee-bob, Rodelspergers' 37.  
Bee books 90.  
Bee botany 178.  
Bee-culture 1, 21, 31, 61, 161.  
Bee disease 138, 155, 156, 164, 167, 172, 198, 209, 218, 218, 220.  
Bee feed 149.  
Bee feeder, 16, 17, 53, 54, 99, 105, 120, 180, 217.  
Bee feeding 31, 65, 122.  
Bee flowers 8.  
Bee glue 100.  
Bee hives 71, 194.  
Beekeepers, caution to 175.  
Beekeepers' convention 225.  
Beekeepers, items for 15.  
Bee management 5, 11.  
Bee muss 192.  
Bee pasture 188, 189, 226.  
Bee plants 5, 52, 192.  
Bee stings 239.  
Beginner, experience of, 235.  
Bees and blossoms 128.  
Bees and fruit 18.  
Bees disappearing 167.  
Bees, discolored 71.  
Bees Egyptian 18.  
Bees fighting 88.  
Bees, how to save, 234.  
Bees hybrid 107.  
Bees in Australia 223.  
Bees in Minnesota 134, 216.  
Bees in Mississippi 217.  
Bees in Missouri, 14.  
Bees in Tennessee 20.  
Bees in war 39.  
Bees Mexican 24.  
Bees not dormant 39.  
Bees, removing 235.  
Bees, respiration of 13.  
Bees' saliva 197.  
Bees, transferring 7.  
Bees, wintering 58, 69, 70, 72, 109, 116, 123, 131, 152, 157, 169, 190, 198, 225, 227.  
Birds and bees in Louisiana, 242.  
Bleaching wax 29, 47.  
Borage 191.  
Brood, cost of 215.  
Brooding temperature 168.  
Brown honey cake 77.  
Camphor, to stop robbing 200.  
Can bees be poisoned ? 199.  
Candid confessions 170.  
Candid honey 219.  
Cape of Good Hope, bees from 125.  
Capture of queen and fertile workers 146.  
Cause of bee disease 218.  
Caution to beekeepers, 175, 178.  
Cleome integrifolia 192.  
Cost of brood 215.  
Closed top frames 51, 52, 74.  
Clover: alsike 33, 36, 53, 87.  
Clover red 65, 136, 196, 197.  
Color of Italian bees 110, 129.  
Colonies, drone-breeding, 46.  
Comb guides 66.

Comb straight 90, 116.  
Common failures 119.  
Convention of German beekeepers 161, 201.  
Corrections and explanations 200.  
Criticism 48.  
Crooked combs 80, 244.  
Cure for bee stings 89.  
Dark honey 89.  
Darmstadt Convention 101, 201.  
Dathe's method 32.  
Death from a bee-sting 48.  
Diamond movable comb hive 187.  
Discolored bees 71.  
Disease among bees 11, 12, 120, 138, 155, 156, 164, 165, 166, 167, 172, 198, 204.  
Dividing bees 90, 116, 185, 186.  
Drone breeding colonies 46, 227, 243.  
Drone comb 80.  
Drones 8, 171, 214.  
Drones, late reared 68.  
Drones from young queens 171.  
Durant's patent hive 223.  
Dysentery or no dysentery 216.  
Dysentery, prevention of 145.  
Dzierzon theory 222, 243.  
Early swarms 40.  
Economic hive 210, 244.  
Editorial, 17, 37, 55, 75, 76, 95, 117, 118, 137, 138, 139, 177, 197, 221, 241.  
Espancette 26, 62, 118.  
Exodus of honey bees, 138.  
Experience of a beginner 235.  
Experience in Italianizing No. iv. 108.  
Explanation 200.  
Extraordinary swarming 196.  
Facts 135.  
Facts and questions 172.  
Facts for beemen 220.  
Failures, common 119.  
Fecundity of the queen bee 30.  
Feeding bees 150, 169, 177.  
Feeding meal 3, 158, 177, 230.  
Fertile workers 85, 227.  
Fertilization, pure 31, 37, 47, 90, 205.  
Fighting bees 88.  
Flanders vs. Gallup 136.  
Form of hives 152, 202.  
Foulbrood 81, 101, 121, 141, 219, 226.  
Futter's method 32.  
Gallup's rejoinder 92, 214.  
Gallup on the Langstroth hive 237.  
German Beekeepers' Convention 161, 201.  
Getting bees out of honey boxes 159, 209, 242.  
Gohde's method 32.  
Hamburg brown honey cake 77.  
Hatching queens 233.  
Hive, convenient 54.  
Hive, Durant's 223.  
Hive, economic 210, 244.  
Hive, Eureka 173.  
Hive, triangular 14.  
Hives and wintering 113.  
Hives, packing 115.  
Hives, patented and other 96.  
Hives, shape and size of 125.  
Hives, queens, and pollen substitute 150.  
Honey bee, mathematics of the 15.  
Honey dew 89, 119, 160.  
Honey emptying machine 58, 59, 76, 134, 144, 179, 180, 224.  
Honey from red clover 197.  
Honey ill-flavored 112.  
Honey mart 47.  
Honey plant 137.  
Honey product 74.

Honey, qualities and properties 23.  
Honey scarcity of 33, 110.  
Honey substitute 53, 89.  
Honey surplus 226.  
Honey for wintering 114.  
Honor to whom honor 185.  
How I became an apiculturist 27, 78.  
How to save bees 231.  
Hunting queens 233.  
Hunting wild bees 9, 68.  
Ill-flavored honey 112.  
Ill-tempered bees 77.  
Imbedded bees 79.  
Impregnation of young queens 65.  
Improved method of swarming 170, 224.  
Inquiries and responses 34.  
Inquiries, several 224.  
Instinct 171.  
Introducing queens 16, 157, 201, 226, 240.  
Italian bees 40, 115.  
Italian bees, color of 110.  
Italian bees, purity of 57, 84.  
Italian queens 90, 244.  
Items for beekeepers 15.  
Items from Novice 191.  
Items, various 131, 219.  
Kentucky bee disease 164.  
Kidder's reply, &c., 195, 213, 214.  
King birds 63, 199.  
Kohler's process for pure fertilization 31.  
Kruger's process for pure fertilization 32, 47.  
Langstroth hive 91, 178, 215.  
Letter from Italy 93.  
Letter from Maine 28.  
Ligurian bees 84, 124, 127.  
Linden trees 91.  
Long-lived queens 106.  
Loss of bees 164, 242.  
Loss of queens 100.  
Mail, sending queens by 112, 130.  
Management and hives 60, 181.  
Markings of bees 199.  
Mart, for honey and wax 47.  
Mead, Queen Elizabeth's 49.  
Meal feeding 3, 158, 177, 197.  
Mellilot clover 70, 189.  
Mellextractor 91.  
Mice 70.  
Michigan, the season in 94.  
Mismanagement 181.  
More of the bee disease 172.  
Moth worms 59.  
Multiplication of stocks 133.  
Natural artificial swarming 11.  
Necessity of ventilation 149.  
New hive 184.  
New smoker 151.  
Non-swarming 58, 88.  
Notes and remarks 97.  
Novice 3, 35, 63, 113, 120, 178, 191, 212.  
Novice, question to 100.  
Oat and rye meal 63.  
Observations and suggestions 63.  
Packing bee hives 115.  
Paper hives, 233.  
Past season 63, 124.  
Pasturage 188.  
Patent claims 151, 240.  
Patented and other hives 96.  
Plants for bees 52.  
Pollinia integrifolia 192.  
Pollen 197, 231.  
Pollen substitute 150, 231.  
Postage on queen cage 233.

Premium offered 165.  
Prevention of dysentery 145.  
Professor alive 176.  
Prolific queens 106, 174.  
Propolis 100.  
Dr. Preuss on foulbrood 141, 205.  
Price's square frame hive 86.  
Puff-ball smoke 33, 100, 239.  
Pure fertilization 31, 37, 47, 90, 205.  
Purity of Italian queens 244.  
  
Queen raising 233.  
Queens 199.  
Queens by mail 112, 130.  
Queens, diminutive 16.  
Queen, fecundity of 30.  
Queen hatching 234.  
Queen hunting 232.  
Queens, introducing 16.  
Queens, loss of 100.  
Queens, laying drone and worker eggs 219.  
Queens mating twice 20, 56, 110, 140, 238.  
Queens, prolific and long-lived 106, 174.  
Queens, pure fertilization of 31, 37, 47, 90, 205.  
Queens, renewing 116.  
Queens, reserve 41.  
Queens, superseding 9.  
Queens, to breed from 175.  
Queens, two in one hive 58, 100.  
Queens and workers 117.  
Queens, wintering reserve 99.  
Queen queen 118.  
Querries, 186.  
Querist's questions answered 207.  
Question to Novice 100.  
Questions from England 209.  
Questions answered 213.  
Questions by Querist 148, 207.  
Questions and facts 172.  
  
Rational bee-culture 147.  
Raw pollen 3.  
Rectangular frame hive 114.  
Red clover 65, 73.  
Red clover honey 197.  
Rejoinder by Gallup 92.  
Remarks and notes 97, 186.

Remarks on bee disease 209.  
Removing bees 235.  
Renewing queens 116.  
Reply from Novice 120.  
Reply to H. Rosenstiel 243.  
Reply to J. H. Thomas 220.  
Reproduction of bees 13.  
Response to inquiries 34.  
Reserve queens 41, 99.  
Results of wintering 232.  
Reverses, Novice's 212.  
Ruchee 91.  
Rye and oat meal 158, 230.  
  
Sainfoin, 26 62, 91.  
Saliva bees, 197.  
Scarcity of honey 33, 118, 147.  
Scotch method of pure fertilization 32.  
Sending queens by mail 238.  
Several inquiries 224.  
Several items from Novice 191.  
Several things considered 193.  
Shallow hives 40, 68, 78, 91.  
Shape and size of hives 125, 127.  
Side opening hive 74.  
Singular case 200.  
Singular disease of bees 106.  
Size of hives 202.  
Size of honey bees 66.  
Small queens 16.  
Smoker, a new 151.  
Solvent of wax or propolis 20.  
Sorghum as bee food 148.  
Square frame movable comb hive 86.  
Starch sugar 29.  
Sting of the bee 48, 107, 180.  
Stocks, multiplication of 133.  
Straight combs 90, 116, 185.  
Straining honey and wax 159.  
Straw movable comb hives 38, 160.  
Substitute for honey 53, 89.  
Sundry suggestions 139.  
Superseding queens 9.  
Surplus honey 226.  
Surrejoinder 114.  
Swarming 52.  
Swarms, early 40.  
Swarming, unprepared 60.  
Swarms and honey product 74.

Swarms natural, artificially produced 11, 16.  
Swarm on a lamp-post 28.  
Swarming extraordinary 196.  
Swarming, improved method of 170, 224.  
Swarming artificial 180, 225.  
  
Tallow, for honey board 20.  
Temperature for brooding 168.  
Tennessee Apriarian Society 74.  
That Reply (?) 213.  
Theory, new and curious 193.  
Toads 79.  
To get bees out of honey boxes 159, 209, 242.  
Tomato honey 67.  
Top boxes 98.  
Transferring bees 7.  
Triangular hive 14.  
Triangular guide strips 68.  
Tulip trees 59.  
  
Unprepared swarming 60.  
Upward ventilation 183.  
  
Value of pollen or meal 197.  
Various items 131.  
Various things 194.  
Various topics 9.  
Varronian theory 50.  
Ventilation 8, 149, 183, 200, 230.  
Vicious bees 79.  
  
What will I do? 165.  
Wild bees 9, 68.  
Wings of bees 95.  
Wintering bees 38, 64, 69, 70, 72, 92, 109, 113, 116, 128, 131, 152, 157, 169, 190, 199, 225, 227, 228, 229, 232.  
Wintering in paper hives 233.  
Wintering reserve queens 99, 226.  
Wintering, results of 232.  
Worker comb 98, 132, 152.  
Workers fertile 85.  
Workers reared in drone cells 140.  
Workers and queens, 117.  
  
Young Italian bees 40.  
Young queens, drones from 117.

## INDEX TO CORRESPONDENTS.

A 108; Adair D. L. 66; Alley H. 69, 102, 215; Aucham-  
baugh B. C. 240.  
B 194; Babcock B. F. 19; Baldridge M. M. 70, 90, 149,  
186; Baldwin A. A. 224; Barnes W. A. 33, 97; Beebe J.  
M. 150; Belmont 196; Benedict A. A. 220; Bernard Dr.  
H. C. 50, 167; Berlepsch Baroness L. von 81, 207, 236;  
Bickford R. 39, 96, 109, 159; Biglow C. B. 76; Bingham  
T. F. 14, 116; Blumhoff Dr. 83; Bohrer Dr. G. 39, 239;  
Briar 180; Brundage A. J. 70; Bullard J. 146.  
Carpenter C. 29; Carr W. 84; Cary W. W. 186; Conant  
C. 38; Condit W. C. 29; Conklin Dr. A. V. 114, 187;  
Crathorne F. 150; Crish H. 149; Culver J. L. 129; Cum-  
ningham W. F. 186.  
Dadant C. 13, 27, 57, 78, 79, 91, 147, 167, 168, 169, 180,  
220; Davis Dr. J. 52, 71, 106, 119, 172, 188, 231, 243; Davis J.  
L. 140; Davis W. J. 198; Dunlavy B. B. 40.  
Fairbank's L. C. 53, 116; Faul H. 16, 112; Flory Rev.  
J. S. 50; Franch L. C. 52, 74; Ford, J. A. 216.  
Gallup E. 5, 8, 9, 11, 31, 34, 40, 90, 92, 106, 119, 128, 133,  
145, 152, 170, 176, 181, 196, 209, 214, 233, 234; Gardner  
J. R. 68, 68, 229; Gregg J. L. 14; Grimm A. 159, 199, 206,  
240.  
Hamlin T. B. 38; Hart A. H. 127; Hastings C. 233;  
Hazen J. 7, 88; Helm J. C. 169; Henchen W. 38, 160;  
Hill T. C. 236; Hipolite Dr. W. W. 48; Howe Dr. G.  
242; Howe M. O. 107; Hubbard J. L. 36, 38, 59, 144, 192,  
200; Hunter J. W. 87; Hussey J. 178.  
King H. B. 68; Kirkpatrick D. L. 172.  
Langstroth J. T. 72, 152, 213, 218; Lattner P. 222;  
Leay J. W. 139; Libbey H. 80.

Marvin J. M. 115, 116, 140, 193; May S. 151; Mayfield  
J. W. 100; McFatrige P. W. 38; McGaw T. G. 33; Mc-  
Lay J. 124; McLean J. L. 175; McMullen J. 168, 193;  
Miller E. H. 118; Miller R. 199; Miner F. H. 183; Miner  
H. D. 40, 80, 215, 231; Moore C. B. 172; Munson & Wil-  
ley 36; Murphy R. R. 53.  
Nesbit H. 20, 156, 213, 224 240.  
Paine C. S. 65; Palmer M. G. 157; Parker Dr. S. J.  
131; Peabody J. L. 244; Pond J. E. Jr. 110, 238; Pounds-  
fort J. 16; Price J. M. 16, 53, 54, 59, 60, 65, 86, 89, 120,  
125, 132, 148; Fucket Dr. B. 78, 114, 168, 216, 237.  
Quinby M. 184, 185.  
Repioglio S. B. 55; Rice J. L. 219; Rodgers C. 114;  
Root A. I. 68, 179; Rose J. T. 112, 156, 230; Rosenstiel H.  
69; Russell, Rev. P. R. 98, 134, 170, 180, 239.  
Salisbury A. 100, 116; See H. S. 233; Shulze E. 58;  
Silsbee G. S. 28; Singleton W. Y. 9, 99; Smith C. T.  
222; Smith J. H. 52; Smith M. 196; Stickney H. 33;  
Stratton W. M. 228; Strickland G. 196; S. W. 242;  
Sweet W. O. 242.  
Taylor C. 244; Thorne C. E. 120, 160, 220; Thomas H.  
M. 36; Thomas J. H. 18, 71, 85, 94, 105, 189, 233; Truesell  
Rev. J. W. 73, 77, 149, 210.  
Wallace J. W. 54; Wedge J. C. 214; Wheaton Rev.  
L. 194; Whiting L. C. 9; White J. W. 54; Wilkin R. 20;  
Willey A. G. 74, 98, 171; Winfield J. 40; Wolf W. 57, 59,  
99, 100, 127, 196; Woodbury T. W. 124, 141, 233, 236;  
Worthington D. M. 58.

